



# BEST FOR BESS

**ULTRA rapid® Fuses** –  
small sizes, large advantages

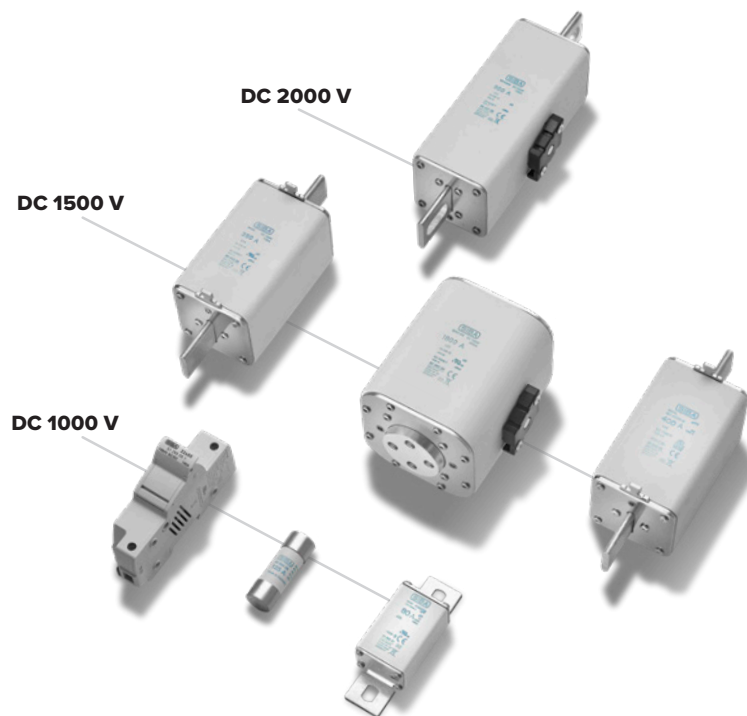


# ULTRA RAPID® FUSES – SMALL SIZES, LARGE ADVANTAGES

ULTRA rapid® fuses offer the unique benefit of a switching device with the so called “current – and energy limitation” property and a breaking capacity up to 260 kA. It enables the customer to design network components at a greatly reduced financial investment.

## Innovative Fuse-Design

We reach highest rated current in smallest sizes from 1100 A @ DC 1000 V up to 2000 A @ DC 1500 V as well as 1000 A @ DC 2000 V.



## Operating Classes

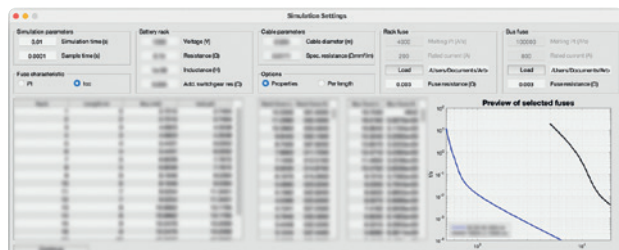
Our fuse-links are tested in accordance to new battery standard IEC 60 269 -7.

aBat	gBat
backup protection of batteries with highest level of breaking capacity	full range protection of line and short circuit protection

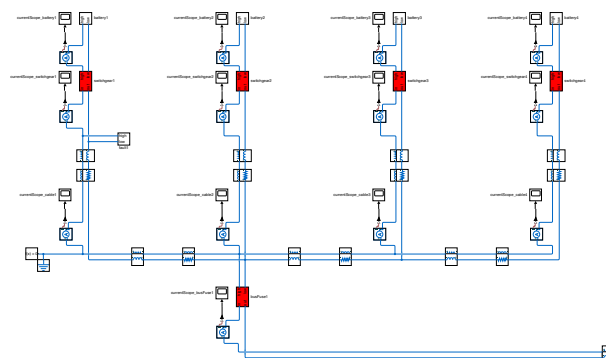
Lowest time constants: **1-3 ms**

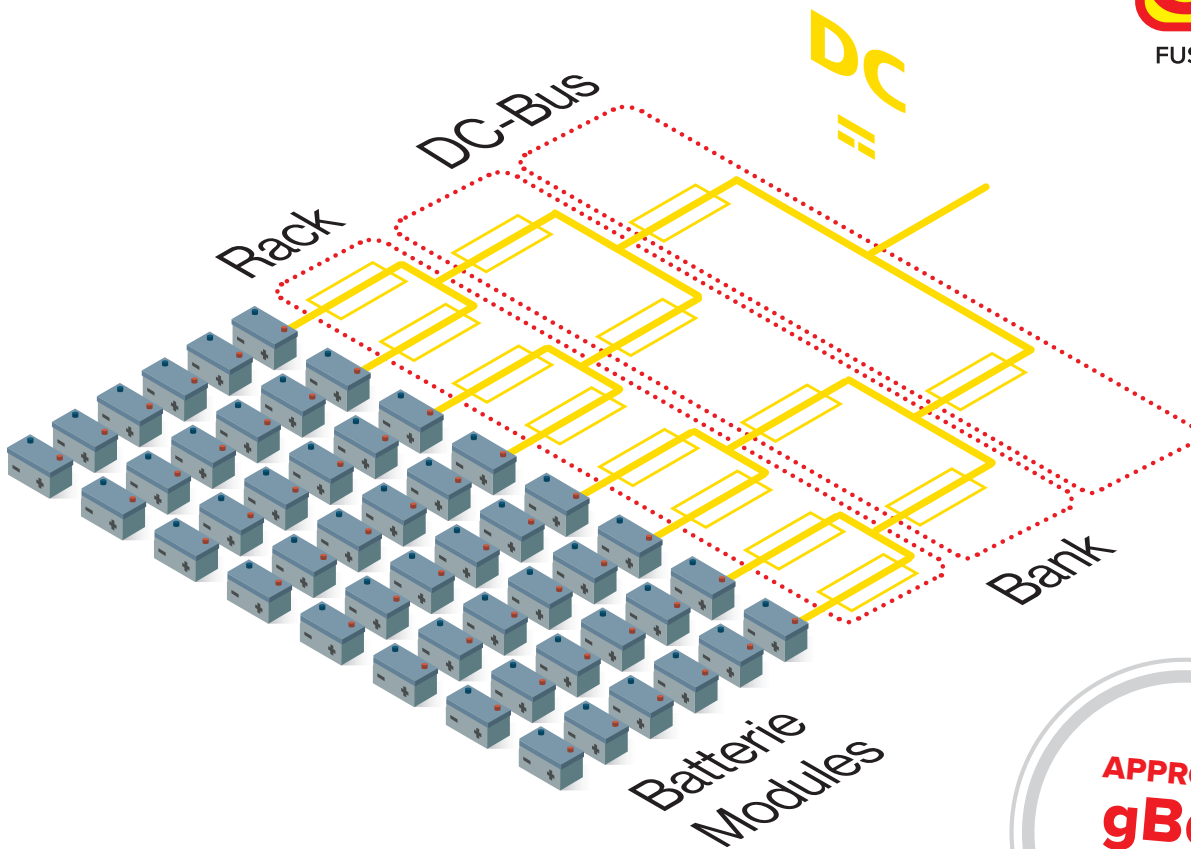
## Own Simulation Tool

... considers all relevant selectivity parameters.



... visualizes simulated fuse constellation.





## Fuse requirements for efficient protection of Energy Storage systems

### Fuse Selectivity:

Bank fuse – Rack Fuse – Module Fuse  
 Realization of selectivity between components  
 $I^2t_A$  Rack fuse  $\ll I^2t_s$  module fuse

### Applications & Performance:

- Battery Modules up to 1200 A
- Battery Racks up to 1000 A
- Battery Banks up to 2000 A
- DC Voltages up to DC 2000 V
- Bank 2000 V DC SQB-DC203 up to 1000 A

### Overview of SIBA's aBat Portfolio for Battery Energy Storage Systems (BESS)

Bank	1000 V DC		1500 V DC		2000 V DC	
	SQB-DC103 700 – 1100 A	SQB-DC104 800 – 1600 A	SQB-DC151 200 – 630 A	SQB-DC153/NH3L 200 – 1250 A	SQB-DC154 630 – 2000 A	SQB-DC203 500 – 1100 A

Rack	1000 V DC			1500 V DC		
	22x65 mm 20 – 125 A	NH0 50 – 350 A	SQB-DC101 63 – 400 A	SQB-DC102 400 – 630 A	27x88 mm 40 – 125 A	SQB-DC0 25 – 400 A

Modul	150 V DC	200 V DC	250 V DC	500 V DC
	35x59 mm 35 – 1200 A	35x59 mm 100 – 400 A	17,5x25,5 mm 12 – 180 A	22x58 mm 12 – 100 A

Our complete back-up (aBat) and full-range (gBat) fuse portfolio for BESS can be found on our website.

# WHAT SETS SIBA APART

## Specialists in fuses and fuse protection technology

Providing customers – their machinery and equipment and of course their personnel – with the highest possible level of protection. And we know that this is good for company profits too: production can continue without suffering lengthy disruptions because if anything untoward should happen our fuses will react immediately to prevent further damage.

## Staying close to our customers

Many of our products are the result of highly specialised requests from discerning clients. We therefore know our way around manufacturing and production, and our inhouse R&D capabilities have also helped us face some of industry's major challenges – from digitisation and the DC factory through to e-mobility and the energy transition.

## Maintaining a global presence

For us ‚made in Germany‘ means ‚selling to the world‘. With subsidiaries on every continent and sales partners in practically every country worldwide we can supply you with original SIBA fuses no matter where you are.



## HOW TO REACH US...



National



International



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